Application No. 10/077,950 Amdt. dated November 24, 2003 Reply to Office Action of September 5, 2003 Docket No. 0503-1009

## Amendments to the Claims:

This listing of the claims replaces all prior versions and listing of the claims in the present application:

## Listing of Claims:

- 1. (original) Method for cutting a workpiece by using a laser beam and an assist gas, in which at least one optical means is used to focus the laser beam at several focal points, separate from one another, and in which, as assist gas for the said laser beam, a gas mixture containing hydrogen and at least one inert gas is used.
- 2. (currently amended) The method Method according to Claim 1, characterized in that wherein the optical means is transparent or reflecting and is chosen from lenses, mirrors and combinations thereof, preferably a bifocal lens.
- 3. (currently amended) Method The method according to claim 1, characterized in that wherein the workpiece to be cut is made of stainless steel, coated steel, aluminium aluminum or aluminium aluminum alloy, non-alloy steel or alloy steel.
- 4. (currently amended) Method The method according to claim 1, characterized in that wherein the inert gas is chosen from nitrogen, argon, helium and mixtures thereof, preferably the inert gas being chosen from nitrogen, argon and mixtures thereof.

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- 5. (currently amended) Method The method according to claim 1, characterized in that wherein the assist gas contains from 150 ppm by volume to 40% by volume of hydrogen, preferably from 0.5% by volume to 30% by volume of hydrogen, the balance being the inert gas.
- 6. (currently amended) Method The method according to claim 1, characterized in that wherein the assist gas consists of 5% by volume to 30% by volume of hydrogen, the balance being nitrogen.
- 7. (currently amended) Method The method according to claim 1, characterized in that the wherein a thickness of the workpiece to be cut is between 0.2 mm and 20 mm, typically between 0.3 mm and 16 mm.
- 8. (currently amended) Method The method according to claim 1, characterized in that the wherein a cutting speed is between 0.5 m/min and 20 m/min.
- 9. (currently amended) Method The method according to claim 1, characterized in that the wherein said optical means is arranged so as to obtain at least one first focal point positioned near the upper surface of the workpiece to be cut-preferably so as to coincide with the said upper surface, or in the thickness of the workpiece to be cut in a region close to [[the]] said upper surface, and at least one second focal point

positioned near the lower surface of the workpiece to be cut and in the thickness of the latter, or outside the latter.

- 10. (currently amended) Method The method according to claim 1, characterized in that wherein the assist gas contains hydrogen in an amount adjusted according to the thickness and/or the constituent material of the workpiece to be cut.
- 11. (currently amended) Laser beam cutting apparatus for implementing a method according to claim 1, comprising:
- [[-]] at least one laser generator for generating at least one laser beam;
- [[-]] at least one cutting nozzle with at least one laser beam inlet and at least one laser beam outlet;
- [[-]] at least one transparent or reflecting optical means of the multifocus type for focusing the said laser beam at several focal points; and
- [[-]] at least one source of assist gas containing hydrogen and at least one inert gas for [[the]] said laser beam and for feeding the said nozzle with [[the]] said assist gas.
- 12. (currently amended) Laser beam cutting apparatus for implementing a method according to claim 1, comprising:
- [[-]] at least one laser generator for generating at least one laser beam;
- [[-]] at least one cutting nozzle with at least one laser beam inlet and at least one laser beam outlet;

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- [[-]] at least one transparent or reflecting optical
  means of the multifocus type for focusing the said laser beam at
  several focal points;
- [[-]] at least a first source of gas containing at least hydrogen;
- [[-]] at least a second source of gas containing at least one inert gas; and
- [[-]] gas mixing means for mixing the gas coming from the first gas source with gas coming from the second gas source so as to obtain an assist gas for [[the]] said laser beam containing hydrogen and at least one inert gas, the [[said]] assist gas feeding [[the]] said nozzle.
- 13. (new) The method according to claim 1, wherein the assist gas contains from 0.5% by volume to 30% by volume of hydrogen, the balance being the inert gas.
- 14. (new) The method according to claim 1, wherein a thickness of the workpiece to be cut is between 0.3 mm and 16 mm.